



United States  
Department  
of Agriculture

Contractor  
and Cooperator  
Report No. 8

July 2005



Electronic Report from the Economic Research Service

[www.ers.usda.gov](http://www.ers.usda.gov)

# Food Stamp Program Entry and Exit

## An Analysis of Participation Trends in the 1990s

**By Scott Cody, Phil Gleason, Bruce Schechter,  
Miki Satake, and Julie Sykes, Mathematica Policy  
Research, Inc.**

**ERS project representative: Kenneth Hanson,  
[khanson@ers.usda.gov](mailto:khanson@ers.usda.gov), 202-694-5427**

### Abstract

This study examines the degree to which changes in entry and exit patterns into and out of the Food Stamp Program (FSP) contributed to the FSP caseload growth of the early 1990s and to the decline of the late 1990s. A rise in the FSP entry rate was the driving force behind caseload growth in the early 1990s. However, individuals tended to stay longer in the FSP during this period than at other points of the 1990s, which also contributed to the growth. Caseload decline of the late 1990s was driven predominantly by shorter participation length, although lower entry rates also contributed. The entry rate for single mothers remained relatively constant over the 1990s, but participation length declined in the late 1990s. Despite eligibility restrictions in the late 1990s, the entry rate for noncitizens also remained fairly constant. While the entry rate for able-bodied adults fell after time limits were imposed in the mid-1990s, their participation length appeared unaffected by these limits, which may reflect the tendency for able-bodied adults to have short participation spells even without time limits. Among all new entrants in the FSP in the 1990s, more than half exited the program within 8 months and two-thirds exited within 1 year. Among individuals participating in the FSP for longer than 1 year, the typical participation length declined over the 1990s.



Food Assistance  
and Nutrition  
Research Program

**This report was prepared by the Mathematica Policy Research, Inc., under a cooperative agreement with the Economic Research Service. The views expressed are those of the authors and not necessarily those of ERS or USDA.**

## **ACKNOWLEDGMENTS**

This work was conducted through a cooperative agreement research grant from the Food Assistance and Nutrition Research Program at the U.S. Department of Agriculture, Economic Research Service (ERS). Many people contributed in significant ways to the preparation of this report. We received valuable comments on methodology, substantive issues, and presentation from several staff at ERS, including Kenneth Hanson, Margaret Andrews, Mark Prell, and Parke Wilde. At Mathematica Policy Research, Jon Jacobson provided useful comments on the content of the report. Molly N. Cameron and Jim Cameron edited the report, and Donna Dorsey was responsible for production.

## CONTENTS

Chapter	Page
EXECUTIVE SUMMARY .....	viii
I INTRODUCTION .....	1
A. STUDY OBJECTIVES AND RESEARCH QUESTIONS .....	3
B. SOURCES OF DATA.....	5
1. FSPQC .....	6
2. SIPP.....	11
C. PREVIOUS RESEARCH.....	13
D. OUTLINE FOR REMAINDER OF REPORT.....	16
II FSP RATES OF ENTRY AND EXIT .....	17
A. RESULTS FROM SIPP-BASED ANALYSIS .....	17
B. RESULTS FROM FSPQC-BASED ANALYSIS .....	25
C. ENTRY AND EXIT BY SUBGROUP .....	34
III TRENDS IN FSP PARTICIPATION SPELLS.....	39
A. ENTRY COHORT ANALYSIS .....	40
1. FSPQC-Based Estimates.....	40
2. SIPP-Based Estimates.....	44
3. Subgroups .....	48
B. CROSS-SECTIONAL COHORT .....	51
1. FSPQC-Based Estimates.....	51
2. SIPP-Based Estimates.....	52

## CONTENTS *(continued)*

Chapter	Page
IV	CONCLUSIONS.....59
	REFERENCES .....67
	APPENDIX A: INCONSISTENCIES IN SIPP DATA.....69

## TABLES

Table	Page
1 MONTHLY CHANGE IN FSP PARTICIPANTS, 2002.....	4
2 ADVANTAGES AND DISADVANTAGES OF FSPQC AND SIPP DATA.....	7
3 EXAMPLE OF FSPQC UNDERSAMPLE OF INDIVIDUALS IN FIRST AND SECOND MONTH OF RECEIPT: FEBRUARY 1996 .....	9
4 SIPP PANEL INFORMATION.....	12
5 DURATION OF PARTICIPATION SPELLS IN THE EARLY 1990s .....	14
6 AVERAGE MONTHLY FSPQC-BASED GROWTH, REPLACEMENT, AND EXIT RATES, 1990 THROUGH 2002.....	19
7 DECOMPOSITION OF CHANGES IN FSPQC-BASED CASELOAD GROWTH RATES .....	24
8 AVERAGE MONTHLY SIPP-BASED GROWTH, REPLACEMENT, AND EXIT RATES, 1990 THROUGH 1999 .....	28
9 DECOMPOSITION OF CHANGES IN SIPP-BASED CASELOAD GROWTH RATES .....	32
10 PERCENT OF GROWTH RATE CHANGE EXPLAINED BY REPLACEMENT RATES FOR VARIOUS ADJUSTMENTS TO 1996 SIPP REPLACEMENT AND EXIT RATES .....	34
11 ADJUSTMENTS TO 1996-BASED REPLACEMENT AND EXIT RATES BY SUBGROUP.....	36
12 OUTCOMES FOR FSP-EXITERS, 1990-1999 .....	38
13 LIFE TABLE OF FSP PARTICIPATION SPELLS ENTRY COHORT FSPQC-BASED ESTIMATES, 1990-1999 .....	42
14 COMPARISON OF PARTICIPATION SPELLS ENTRY COHORT SIPP-BASED ESTIMATES, 1990-1999 .....	43
15 SIMULATED CASELOAD USING FSPQC-BASED EXIT RATES 1990 THROUGH 1993 VS. 1996-1999.....	44

TABLES (*Continued*)

Table		Page
16	LIFE TABLE OF FSP PARTICIPATION SPELLS ENTRY COHORT FSPQC-BASED ESTIMATES, 1990-1999 .....	46
17	COMPARISON OF PARTICIPATION SPELLS ENTRY COHORT SIPP-BASED ESTIMATES, 1990-1999 .....	47
18	COMPARISON OF SPELL LENGTH DISTRIBUTIONS SIPP ESTIMATES FOR ENTRY COHORT SUBGROUPS, 1990-1999 .....	49
19	COMPARISON OF SPELL LENGTH DISTRIBUTIONS SIPP-BASED ESTIMATES FOR ENTRY COHORT SUBGROUPS, BY PERIOD .....	50
20	SURVIVOR AND EXIT RATES FOR FSPQC-BASED MARCH 1996 CROSS-SECTIONAL COHORT .....	53
21	SURVIVOR AND EXIT RATES FOR SIPP-BASED MARCH 1996 CROSS-SECTIONAL COHORT .....	53
22	SURVIVOR AND EXIT RATES FOR SIPP-BASED FEBRUARY 1991 CROSS-SECTIONAL COHORT .....	56
23	COMPARISON OF SPELL LENGTH DISTRIBUTIONS, FEBRUARY 1991 VS. MARCH 1996 SIPP-BASED ESTIMATES .....	56

## FIGURES

Figure		Page
1	FSP PARTICIPATION, 1990-2002 .....	2
2	MONTHLY CHANGE IN FSP PARTICIPANTS, 2002.....	2
3	AVERAGE MONTHLY FSPQC-BASED GROWTH, REPLACEMENT, AND EXIT RATES, 1990-2002.....	20
4	FSPQC-BASED REPLACEMENT AND EXIT RATES FOR FSP PARTICIPANTS .....	22
5	AVERAGE MONTHLY SIPP-BASED GROWTH, REPLACEMENT, AND EXIT RATES, 1990-1999 .....	30
6	SIPP-BASED REPLACEMENT AND EXIT RATES, 1990-199 .....	31
7	SIPP-BASED AVERAGE GROWTH, REPLACEMENT, AND EXIT RATES BY SUBGROUP, 1990-1999.....	37
8	SURVIVOR RATES FOR CROSS-SECTIONAL COHORTS, FEBRUARY 1991 AND MARCH 1996.....	54

## EXECUTIVE SUMMARY

During the 1990s, the Food Stamp Program (FSP) caseload experienced periods of both substantial growth and substantial decline. Between 1990 and 1994, the caseload increased from 20 million to 29 million participants—an increase of more than 44 percent. After 1994, the caseload fell by more than 12 million participants—a decline of 43 percent. In 1997 alone, the caseload fell by 12.5 percent. The period of decline ended in 2001, and by January 2004, the caseload had risen by about 38 percent. These trends coincided with significant changes in the national economy as well as major changes in FSP policies.

Increases and decreases in the monthly number of FSP participants result from changes in rates of entry and exit. Caseloads can grow because individuals enter the program at a faster rate, because individuals exit the program at a slower rate, or both. Likewise, caseloads can decline because individuals exit at a faster rate, enter at a slower rate, or both. However, little is known about how these factors combined to influence FSP caseload trends in the 1990s. While caseload sizes changed in response to policy and economic changes, policymakers do not know the degree to which the response reflected a change in entry patterns versus a change in the length of time individuals participated in the program. Understanding whether caseload trends are driven by changes in entry or changes in exit is important both for judging the success of existing policies and for developing effective policies in the future.

This study examines patterns in the rates of FSP entry and exit, and how those patterns contribute to the caseload trends of the 1990s. Specifically, we examine monthly replacement rates (defined as the number of new FSP entrants in a month divided by the previous month's caseload) and exit rates (defined as the number of people participating in the previous month but not the current month divided by the previous month's caseload). As another way of examining changes in exit rates, we examine changes in the length of participation spell: if participation spells tend to get shorter, then exit rates are increasing, but if participation spells tend to get longer, then exit rates are decreasing.

The five research questions addressed in this study are:

1. How did growth rates, replacement rates, and exit rates change over the course of the 1990s?
2. Are the changes in the growth rates explained by changes in the replacement rate, changes in the exit rate, or both?
3. How long did individual FSP participation spells tend to last?
4. Have FSP spell lengths changed over time?
5. Did replacement rates, exit rates, and spell lengths vary for FSP subpopulations, including the elderly, able-bodied adults, single mothers, and the working poor?



## RESULTS

This study examines patterns of FSP entry and exit for all participants and for various subgroups. We examine how rates of entry and exit changed and how those changes influenced caseload growth. This study also updates earlier estimates of participation spell patterns. We construct all estimates twice, using two sources of data: (1) the Food Stamp Program Quality Control (FSPQC) database and (2) the Survey of Income and Program Participation (SIPP). The results yield the following conclusions:

- Caseload changes during the 1990s were driven both by changes in the rate that people entered the program as well as by the length of time that people participated.
- Much of the caseload growth of the early 1990s was caused by increasing replacement rates, although lengthening participation spells also contributed to the growth.
- Much of the caseload decline of the late 1990s was caused by shorter participation spells. In particular, participation spells among long-term participants were reduced substantially.
- During the entire 1990 to 1999 period, more than half of new entrants exited the program within between six and eight months, and about two-thirds of new entrants exited within one year.
- In any given month, the caseload consisted of a large portion of long-term participants. In March 1996, between one-third and one-half of participants were in the middle of spells longer than four and a half years (a substantial decline from earlier estimates which indicated that in 1992 one-half of participants were in the middle of spells longer than eight years).
- Single mothers entered the FSP at a relatively constant rate throughout the 1990s. The length of time that single mothers participated in the FSP declined over the course of the 1990s.
- Because able-bodied adults have always experienced short FSP participation spells, the time limits on FSP benefits imposed through welfare reform had only a minor impact on the length of their participation spells.
- There is no evidence that the welfare reform changes of 1996, which denied eligibility to certain types of noncitizens, lowered rates of food stamp program entry among noncitizens.

The specific answers to the study's five research questions are discussed below. Results are discussed across three distinct periods of caseload change, each about three years in duration and reflecting different stages of the caseload growth cycle. The first was a period of caseload growth from 1990 to 1993; the second was a period of some caseload decline between 1993 and 1996; the third was a period of sharp caseload decline from 1996 to 1999.

TABLE ES-1

AVERAGE MONTHLY GROWTH RATES, REPLACEMENT RATES,  
AND EXIT RATES, 1990 THROUGH 1999

	FSPQC-Based Estimates			SIPP-Based Estimates		
	Average Growth Rate <sup>a</sup>	Average Replacement Rate <sup>b</sup>	Average Exit Rate <sup>c</sup>	Average Growth Rate <sup>a</sup>	Average Replacement Rate <sup>b</sup>	Average Exit Rate <sup>c</sup>
Overall	-0.2	7.0	7.2	0.0	4.4	4.4
<b>Caseload Growth</b>						
1990-1993	0.9	7.5	6.7	1.4	5.3	3.9
<b>Caseload Decline I</b>						
1993-1996	-0.4	6.8	7.2	0.0	4.2	4.2
<b>Caseload Decline II</b>						
1996-1999	-0.9	6.7	7.6	-1.3	3.8	5.1

SOURCE: 1990-2002 FSPQC data; 1990-1996 SIPP panels (1996 SIPP-based estimates are adjusted).

<sup>a</sup>Reflects the average monthly percent change in the number of FSP participants. Computed as average monthly difference between the replacement rate and the exit rate.

<sup>b</sup>Computed as the average monthly number of new entrants as a percent of the previous months number of participants.

<sup>c</sup>Computed as the average monthly number of individuals that left the FSP as a percent of the previous month's number of participants.

### Question 1: How did growth rates, replacement rates, and exit rates change over the course of the 1990s?

Both FSPQC and SIPP data indicate that replacement rates fell and exit rates increased during the 1990s (Table ES-1). Replacement rates were at their lowest levels during the period of caseload decline in the late 1990s. Thus, as the caseload peaked and subsequently began to decline, there were fewer new entrants relative to the previous month's caseload. At the same time, exit rates were at their highest during the decline, so relative to the previous month's caseload, the number leaving the FSP each month grew.

Replacement rates and exit rates tended to be higher in FSPQC than in SIPP analyses. In FSPQC data, the average replacement and exit rates for the 1990s were 7.0 and 7.2 percent, respectively. In SIPP, the rates for the same period were each 4.4 percent. A likely explanation for this difference is that the frequency of reported entry and exits increased in the 1996 SIPP panel. Changes to the survey implemented in 1996 may have led to changes in the way entries and exits were reported. At the same time, it is possible that FSPQC may slightly overstate entry and exit rates. Nevertheless, because FSPQC data are weighted to match administrative participation counts, these estimated growth rates are considered more reliable.

TABLE ES-2

PERCENT OF CHANGE IN GROWTH RATE EXPLAINED BY CHANGES IN REPLACEMENT  
AND EXIT RATES, 1990 THROUGH 1999

Growth Rate Change	FSPQC-Based Rates		SIPP-Based Rates	
	Percent Explained by Change in Replacement Rate	Percent Explained by Change in Exit Rate	Percent Explained by Change in Replacement Rate	Percent Explained by Change in Exit Rate
Growth (1990-1993) to Decline I (1993-1996)	55.7	44.3	77.2	22.8
Decline I (1993-1996) to Decline II (1996- 1999)	30.3	69.7	28.2	71.8
Growth (1990-1993) to Decline II (1996-1999)	47.8	52.2	53.8	46.2

**Question 2: Are the changes in the growth rates explained by changes in the replacement rate, changes in the exit rate, or both?**

The rapid growth in FSP participation in the early 1990s changed to a slight decline in the mid 1990s. This shift can be explained more by a reduction in the rate people entered the program (the replacement rate) than by an increase in the rate that people exited the program (Table ES-2). However, the two data sources used in this study yield different estimates of the relative importance of changes in the rate at which individuals enter the program. According to FSPQC data, the fact that individuals entered the FSP at lower rates explains just over half of the shift between rapid growth and slight decline, while according to SIPP data, lower rates of entry explain 77 percent of the shift.

The slight decline of the mid 1990s then changed to a rapid decline in the late 1990s because participants were exiting at higher rates (and thus had shorter participation spells). Both data sets estimate that rising exit rates explain more than two-thirds of the shift in growth rates between the mid-1990s and the late 1990s. These changes are particularly policy-relevant given that the steep decline followed the sweeping welfare reform changes of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA). During this period, the exit rates were higher than at any other point in the decade.

But the overall conclusion for the 1990s is that neither the replacement rate nor the exit rate was solely responsible for explaining caseload changes. When we examine the relative roles of replacement and exit rate changes in the shift from the caseload growth period of 1990 to 1993 to the caseload decline period of 1996 to 1999, both FSPQC and SIPP indicate that the two factors have equal weight in explaining the caseload changes. As a result, policymakers should consider

the implications of policy and economic changes on both the rate at which people enter the program and on the length of time that they participate.

### **Question 3: How long did individual FSP participation spells tend to last?**

According to both SIPP and FSPQC data, over half of all new entrants into the FSP exited the program by somewhere between six and eight months, and approximately two-thirds of new entrants exited by the end of one year in the program. Only about one out of every three new entrants participated in the program for longer than one year. Among those new entrants with spells longer than one year, the duration of their spells was estimated to be longer in SIPP data (where more than 20 percent of new entrants participated for over two years) than in FSPQC data (where just over 10 percent of new entrants participated for more than two years).

Examining participation spells of new entrants tells only part of the story. While new entrants that become short-term participants cycle off of the program after a few months, new entrants that become long-term participants tend to accumulate on the caseload. Thus, in any given month, a large proportion of the caseload will be long-term participants.

According to FSPQC data, half of all individuals participating in March 1996 were in the middle of participation spells longer than two years, and one-third of all participants had participation spells lasting longer than four and a half years. SIPP data estimate that the caseload that month had an even higher proportion of long-term cases. According to SIPP, half of the individuals participating in March 1996 were in the middle of participation spells lasting longer than four and a half years. Both data sources indicate that there were far fewer long-term participants in 1996 than in 1991, where prior studies using SIPP data estimate that half of participants were in the middle of participation spells lasting longer than eight years. The reasons for the substantial differences between FSPQC and SIPP estimates of participation spells in March 1996 are not fully understood. However, it is possible that the respective data collection methods lead FSPQC to underestimate participation spells and lead SIPP data to overestimate participation spells.

### **Question 4: Have FSP spell lengths changed over time?**

FSPQC data estimate that participation spells became shorter over the 1990s. According to FSPQC data, 25 percent of individuals that entered the program in the early 1990s exited by the end of their fourth month, and 50 percent by the end of their seventh month. In the late 1990s, 25 percent of program entrants exited by their third month and 50 percent by their sixth month. While these differences may seem modest, the fact that at least 50 percent of new entrants were exiting faster led to substantial declines in the caseload.

SIPP data, on the other hand, estimate that participation spells were relatively constant over time. Among individuals who entered the FSP in the early 1990s as well as in the late 1990s, SIPP estimates indicate that the 25 percent exit by their fourth month and 50 percent exit by their eighth month.

Among households with relatively long participation spells, both FSPQC and SIPP data estimate that spells became shorter over the 1990s, but the estimates differ on the magnitude of the decrease. According to FSPQC data, the 75<sup>th</sup> percentile spell length (the point at which 75 percent of individuals who entered the program exit) fell from 13 months in the early 1990s to 12 months in the late 1990s. According to SIPP data, the 75<sup>th</sup> percentile fell from 26 months to 16 months. Some of this change may be driven by changes in the data, as rates of entry and exit experience an unexplained increase in later years of SIPP data.

### **Question 5: Did replacement rates, exit rates, and spell lengths vary for FSP subpopulations?**

According to SIPP data, participation trends among single mothers are explained predominantly by the exit rate.<sup>1</sup> The replacement rate for single mothers stayed relatively constant during the 1990s. On the other hand, the exit rate was low during the growth of the early 1990s and was high during the declines of the late 1990s. Thus, compared with the rest of the FSP population, single mothers tended to enter the program at a more stable rate but the length of time they participated varied more. According to SIPP data, the exit rate explained 57.6 percent of single mother caseload trends in the early 1990s and 63.6 percent in the late 1990s.

Compared with other subgroups, single mothers had relatively long participation spells. The median spell for the entire period was 11 months, which reflects a decline from 13 months in the early 1990s to 8 months in the late 1990s.

Somewhat surprisingly, the replacement rate for noncitizens did not decline after the eligibility restrictions of PRWORA. The replacement rate for noncitizens in the 1996 to 1999 period (4.7 percent) was almost the same level as in the 1990 to 1993 period (4.9 percent). The length of participation among noncitizens did change, however. The exit rate increased from 3.8 percent in the early 1990s to 5.3 percent in the late 1990s, and the median participation spell fell from 12 months to 8 months among this population.

Another group with eligibility restrictions is the group composed of able-bodied adults without dependents (ABAWDs). In 1996, welfare reform subjected ABAWDs to time-limited food stamp participation (unless they were meeting work requirements, ABAWDs could receive no more than three months of FSP benefits). The replacement rate for ABAWDs fell from 13.3 percent in the early 1990s to 10.1 percent in the late 1990s, suggesting that ABAWDs potentially were deterred from entering the FSP. The exit rate for this population increased somewhat from 10.5 percent in the early 1990s to 11.8 percent in the late 1990s. ABAWDs had the shortest participation spells of all subgroups examined, with half of all ABAWDs exiting by the end of their fourth month and three-fourths exiting by the end of their ninth month. Despite time limits

---

<sup>1</sup> Subgroup analysis is conducted on SIPP data only. Subgroup analysis is not possible in the FSPQC because estimates are derived from repeat cross-section analysis. As a result, we cannot distinguish changes in status of existing caseload households (e.g., from non-working poor to working poor) from new entrant households.

imposed through PRWORA, the short ABAWD participation spells remained relatively constant during the 1990s. This may reflect the fact that able-bodied adults always tended to have short participation spells, even without time limits.

Caseload trends for the elderly are driven more by entry patterns than exit patterns—the exit rate among the elderly remained between 2.5 and 2.7 percent over the 1990s. Compared with other groups, the elderly had the longest participation spells. Among all new entrant elderly individuals during the 1990s, half had spells of 15 months or longer. Spells were longest during the early 1990s, when half of the elderly had spells of 20 months or longer. Participation spells for the elderly experienced the sharpest decline among all of the subgroups, with the median falling to 12 months in the late 1990s.

## **Conclusion**

To conclude, caseload changes appear to be driven by changes in both the rate individuals entered the program and the length of time that they stay on the program. The caseload growth period of the early 1990s was driven predominantly by an increase in the rate individuals entered the program; the caseload decline of the late 1990s was driven predominantly by a shortening of the length of time individuals participated. Throughout the 1990s, about two-thirds of new entrants exit the program within one year. Participation spells for those participating for more than one year shortened over the 1990s, and there is some evidence that participation spells for those participating under one year also shortened. Among subgroups, single-mothers tended to enter at a constant rate but responded to economic and policy changes through changes in spell length. A similar pattern was observed for noncitizens. Participation spells for ABAWDs, who have always had short participation spells, appear to have been unaffected by time limits imposed in the 1990s.